

**UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE**

March 2003

**THIS IS NOT A SOLICITATION
NOTICE TO PROSPECTIVE OFFERORS**

PROSPECTUS NO. 023-M-APHIS-03 FOR AERIAL APPLICATION

The U.S. Department of Agriculture, APHIS, MRP-ASD may require services for contract for aerial application of pesticides for the Grasshopper and Mormon Cricket programs. Solicitations for offers will be issued to pre approved aerial applicators when service is required. All applicable provisions and specifications of this prospectus will be incorporated into solicitations by reference only and will become a part of any resultant contract. You should retain this copy for reference when offers are requested. Facsimile offers will be accepted.

All Representations and Certifications, Section K as included in the Solicitation Mailing List Application, will be applicable to all solicitations and resulting contract(s) referencing this prospectus. The procurement will be made by negotiation in accordance with Federal Acquisition Regulations 6.302-2 Unusual and Compelling Urgency. Note: There will be no public opening, therefore, no information will be given until award is made. It is the responsibility of each offeror to advise us in writing of any changes to the information provided in your application and to the Representations and Certifications.

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APHIS MRP-ASD
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The following information will be included with each solicitation.

DESCRIPTION

1. Pesticide: _____ gallons/lbs plus or minus 25 percent, to be applied for control of _____ in the State(s) of _____, estimated number of acres _____
2. Location: _____
3. Pesticide: _____ Rate of application (actual formulation) _____ per acre
4. Location of pesticide storage site(s): _____
5. Pesticide will be delivered in: _____ (bulk, barrels, bags, or boxes).
6. Aircraft required:
 - (a) Category & Number: _____ Fixed Wing: Yes or No: _____ Matched: Yes or No: _____ Same Make & Model: Yes or No: _____
 - (b) Observation: Yes or No: _____ with minimum speed of _____ mph (Note: If application aircraft is Category A or B = 160 mph, If application aircraft is category C = 150 mph, or if application aircraft is category D and all helicopters = 130 mph).
7. Estimated average ferry distance: _____ miles Elevation range of work area: _____ feet
8. Minimum block size: _____
9. Approximate percent of area not to be treated: _____
10. Congested areas, percent: _____
11. Estimated reporting date: _____
12. Estimated starting date: _____
13. Number of operational hours allowed to complete the contract: _____
14. Number of days required for State certification: _____
15. Guidance: DGPS (precision): _____ Flagging (non-precision): _____ (See page 9 of this prospectus for a description of each).
Furnished by Contractor: Yes or No: _____ Furnished by Government: Yes or No: _____
16. Recording equipment. Furnished by Contractor: Yes or No: _____ Furnished by the government: Yes or No: _____ (See page 9 of this prospectus for a description of recording equipment).
17. Pesticide loading equipment required: Yes or No _____
18. Pesticide mixing equipment required: Yes or No _____ Type _____ (Refer to Prospectus)
19. Water Transport: Yes or No _____ (Refer to Prospectus)
20. Name and telephone number of Contracting Officer's Representative (COR): _____
21. Site specific information: Rough terrain _____ % Sensitive Areas _____ % Water _____ % Buffers Required _____ %
22. Any additional information: (Examples: Deviation from listed swath spacing; Reduced rates of application; etc.)

BID SCHEDULE

ITEM NO. 1

Offeror to furnish all Aircraft, Personnel, Facilitating Equipment, and services that fully comply with all terms and provisions herein specified and Prospectus No. 023-M-APHIS-03, dated March 2003.

Prompt Payment Discount _____ % _____ Days

AIRCRAFT CATEGORIES

The Aircraft Categories have been established to facilitate program planning for desired aircraft based on the insect life cycle, timing of application, support personnel, adequate airport space, required aircraft performance, length and strength of runways, taxi ways and ramps, and the elevation and type of terrain to be treated.

The chart below lists aircraft by category, the assigned swath spacing for Malathion, Sevin XLR Plus, Dimilin 2L, and the stainless steel flat fan spray tip size required for the pesticide used. When using Reduced Agents and Area Treatments (RAATs), use the assigned swath width for calibration but space the aircraft an additional 25 feet when using malathion and an additional 100 feet when using Sevin XLR Plus and Dimilin 2L. Example: A turbine Air Tractor will be calibrated for a 150 foot swath and spaced 175 feet when using malathion. When using Sevin XLR Plus or Dimilin 2L, the aircraft will be calibrated for 120 feet and spaced 220 feet.

AIRCRAFT	MALATHION	SEVIN XLR PLUS	DIMILIN 2L		MALATHION	SEVIN XLR PLUS	DIMILIN 2L
	FEET	FEET	FEET				
<u>CATEGORY A - FIXED WING</u>							
L100-30 Hercules (w/Adds Pack Spraying System)	800	650	650		8008	8010	8015
<u>CATEGORY B - FIXED WING</u>							
Douglas DC-3/C-47	400	300	300		8008	8010	8015
Martin 404	500	350	350		8010	8015	8020
<u>CATEGORY C - FIXED WING</u>							
Ag-Cat (800 hp)	150	120	120		8003	8004	8004
Ag-Cat (1200 hp)	150	120	120		8004	8006	8006
Dromader M-18	150	120	120		8004	8006	8006
Piper Aztec PA-23 (500 hp)	150	120	120		8004	8006	8006
Thrush (800 hp)	150	120	120		8003	8004	8004
Thrush (1200 hp)	150	120	120		8004	8006	8006
Turbine Ag-Cat	150	120	120		8004	8006	8006
Turbine Air Tractor	150	120	120		8004	8006	8006
Turbine Thrush	150	120	120		8004	8006	8006
Twin Beech/C-45	150	120	120		8004	8006	8006
<u>CATEGORY D - FIXED WING</u>							
Ag-Cat (A&B Models,450 hp)	100	75	75		8002	8003	8003
Ag-Cat (B&C Models,600 hp)	125	100	100		8002	8003	8003
Bellanca Eagle	100	75	75		8002	8003	8003
Cessna (all 188 Models)	100	75	75		8002	8003	8003
Piper Brave	100	75	75		8002	8003	8003
Piper Pawnee (120-260 hp)	100	75	75		8002	8003	8003
Stearman (450-600 hp)	100	75	75		8002	8003	8003
Thrush/Snow/Air Tractor	125	100	100		8002	8003	8003
Weatherly	100	75	75		8002	8003	8003

CATEGORY A - HELICOPTERS

Bell 204/205/212/214	150	120	120
Sikorsky S-58-T	150	120	120

CATEGORY B - HELICOPTERS

Alouette III	120	100	100
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CATEGORY C - HELICOPTERS

Alouette II	100	75	75
Bell 206	100	75	75
Bell Sely	100	75	75
Hughes 500	100	75	75
Hiller Sely	100	75	75

CATEGORY D - HELICOPTERS

Bell 47	100	75	75
Hiller 12E	100	75	75

SECTION I

GENERAL CONDITIONS AND SPECIFICATIONS

A. Scope

The USDA, APHIS, Plant Protection and Quarantine, herein after referred to as the Government, requires aircraft, personnel, facilitating equipment, and services to apply pesticides.

B. Importance of Starting on Time

Offerors are reminded that there are numerous biological and entomological factors that determine the time and sequence of treatments. The importance of starting and completing a program within specified limits is critical. The objective of each program is to achieve the desired coverage of the designated geographic areas within specified time frames.

C. Gallons Plus or Minus 25 Percent

Any offeror submitting an offer in response to a solicitation subject to this Prospectus acknowledges, without qualification, that he understands and agrees to apply the total gallons/lbs specified in the Description, plus or minus 25 percent. All such application, whether plus or minus 25 percent of the total specified, will be made at the contract price per gallon/lbs.

D. Notice of Award

Notice of Award and Notice to Proceed will be issued by the Contracting Officer (CO) only. Each contract covers the period from the date of award until the contract is completed or terminated.

E. Contracting Officer's Representative (COR)

The CO will designate a representative who will have authority to secure orderly administration of each contract. The COR will have no authority to change the basic terms of the contract. The COR will be a certified pesticide applicator.

F. Airport - Definitions

1. Airport, as used in this Prospectus and each solicitation, means any airport, airstrip, or work site where the Contractor will load his aircraft during contract operations.
2. Reporting airport means the airport to which the Contractor shall deliver his aircraft for inspection and acceptance tests.

G. Day - Definition

Day, as used in this Prospectus, means calendar day. Operations may be conducted 7 days per week, and may include all holidays.

H. Reporting and Starting

1. The reporting date shown in each solicitation is an estimated date. The actual reporting date will be specified by the CO after award is made. The number of days prior to the official starting date will vary, depending on the number and category of aircraft involved, time required to brief pilots on the program and areas to be treated, and completing all preliminary arrangements to start the program on time. A Contractor who does not report on the official reporting date may, at the discretion of the CO, be charged liquidated damages. At the discretion of the CO, the Contractor may be terminated for default and be charged liquidated damages. Liquidated damages will be charged for that day and for each day thereafter until the Contractor, or in the event of termination, a new Contractor reports. The Contractor must report by 12:00 noon on the reporting date specified in the solicitation.

2. The starting date shown in each solicitation is an estimated date when all aircraft, personnel, and facilitating equipment must be ready to begin application. The official starting date will be specified by the CO when award is made, and will be the latest date on which the Contractor must be fully prepared to begin application. (See Section IV, Paragraph H.)

3. A Contractor who does not fully qualify for acceptance on the official starting date may, at the discretion of the CO, be charged liquidated damages. At the discretion of the CO, the Contractor may be terminated for default and be charged liquidated damages. Liquidated damages will be charged for that day and for each day thereafter until all requirements are met. The amount charged will be the daily liquidated damages rate for each aircraft specified to report, even though one or more aircraft may have been qualified and accepted. The Contractor shall have assembled at the reporting airport all required aircraft, personnel, and facilitating equipment and be ready to begin spraying on the official starting date at the time specified by the COR. This includes the specified category and number of aircraft, each meeting the contract requirements; all pilots, each fully qualified; all aircraft loading and facilitating equipment; and loading and servicing personnel. No application for payment to the Contractor will be authorized until all of these requirements are met.

4. The CO will give the Contractor a minimum of 3 calendar days advance notice to report and start, unless a shorter interval is mutually agreed upon. The days allowed for reporting will be determined by the number and type of aircraft involved.

I. Operational Hours Allowed to Complete Program

1. Operational hours are defined as those hours during a day when the COR has cleared the aircraft for application operations. Operational hours will be charged to the last full half hour, beginning when the aircraft are cleared for takeoff and continuing until operations are shut down. Operational hours charged will include all time the aircraft are on the ground between trips, but will not include aircraft loading time prior to the approved starting time or after operations are shut down.

2. The number of operational hours allowed on a program is based on the time the specified number of aircraft would normally need to complete the program. Example: It is estimated that a Category C aircraft should be able to spray at least 500 acres per operational hour. Thus, one Category C aircraft, at 500 acres per hour, would be allowed 100 operational hours to treat 50,000 acres; two C aircraft, at 1000 acres per hour (2 x 500), would be allowed 50 operational hours; and four C aircraft, at 2000 acres per hour (4 x 500), would be allowed 25 operational hours.

3. If, during an operational day, the COR suspends operations due to wind or other reasons, and then clears the aircraft to continue operations later in the day, the operational hours charged for that day will be for the total hours (to the last full half hour) used during those operating periods.

4. On an operational day when all aircraft on the program cannot operate for reasons beyond the control of the Contractor, a proportional adjustment will be made in the operational hours charged for that day. Such conditions would include (a) when one or more aircraft are grounded due to guidance failures, or (b) when one or more aircraft are grounded due to fog or poor visibility in their areas while others can operate. Example: If only two aircraft on a four aircraft contract can operate, the operational hours charged will be one-half of those used on that day.

5. When the contract acreage is increased to exceed 100 percent, the operational hours allowed to complete the program will be increased proportionately.

J. Areas Not to be Treated

1. Areas not to be treated will be designated by the COR.

2. The Contractor shall conduct pre-application reconnaissance flights to ensure that pilots are familiar with program area boundaries, buffer zones, and any other areas that are not to be treated as designated by the COR. Each pilot will be briefed thoroughly and every effort must be exerted to avoid treating such areas..

3. All applications MUST and WILL BE conducted in a manner consistent with the pesticide labeling and requirements specific to the state(s) that operations will be conducted.

K. Performance Standards for Responsible Contractors

Upon completion of each contract, the COR will submit to the CO a Contractor Performance Evaluation Report, based on the following elements:

1. Obtaining the necessary FAA and State Clearances, including certification as an applicator of restricted-use pesticides (certified pesticide applicator) when required, for all pilots and aircraft prior to the starting date. Contractor's compliance in a timely manner with all FAA regulations for maintenance and overhaul, all FAA airworthiness directives, and other applicable directives in force.

2. Pilots obtaining the proper certification for agricultural flying prior to the starting date.

3. Strict adherence to all EPA- and State-approved label instructions for chemical and biological insecticides and compliance with all applicable Federal, State and local environmental laws and regulations in performance of the contract.

4. Attitude of Contractor and contractor's personnel and their cooperation in following instructions, based on contract specifications.

5. Contractor's personnel reporting to work on time daily and remaining on the job until officially released.

6. Contractor reporting on date as directed and providing all required equipment, personnel, and facilities.

7. All equipment meeting contract requirements.

8. Avoiding repeated delays caused by malfunction of equipment or delays in loading between trips which affect the total overall length of time in performing the contract.

9. The contractor's aircraft safety program. The utilization and fostering of good safety habits and attitudes in their employees.

10. Airport Selection: To select the airport(s) to be used and make the necessary arrangements with proper authority for:

a. Use of each airport;

b. Payment of any fees charged for its use;

c. Payment for repairs or damages that result from the contractor's aircraft, equipment, or contamination from insecticide;

d. Immediate removal of all aircraft and equipment from the airport(s), after the program is completed, unless other satisfactory arrangements are made with the airport authorities;

e. Maintaining the areas used by the Contractor in a clean and orderly fashion during their use and cleanup after use to the satisfaction of the COR.

11. Claims for damages brought against the Contractor concerning aerial application or any other operations have been addressed in a fair and timely manner.
12. All required action has been taken for any pesticide spillage with regard to notification and cleanup.
13. All operational guidelines were followed.

L. Height of Flight

The height of flight for each Category aircraft on each program will be specified by the COR.

M. Liabilities of Contractor and Government

The Government will not assume any responsibility whatsoever for loss or damage of equipment owned or operated by the Contractor, his agents, or employees or subcontractor or for the injury to or death of the Contractor, his agents or employees or subcontractor. The Contractor will be responsible for any negligent or wrongful acts or omissions of the Contractor, his employees, agents or subcontractors and employees or agents of the subcontractor(s) incident to the performance of this contract. The Contractor will hold and save the Government, its officers, and employees harmless from all liability for any death or damage to all persons (other than the liability of the Government to Agriculture employees directly engaged in performing work under this contract as provided under the Federal Employee's Compensation Act) or to real or personal property, including negligent use of spray material, which results from the operation of, or incident to, equipment furnished by the Contractor, or otherwise incident to performance of the contract. However, the Contractor will not be responsible for any negligent or wrongful acts or omissions of the U.S. Department of Agriculture, its employees, the U.S. Department of Agriculture's cooperators, or their employees.

N. Evaluation Factors for Award

Offers will be evaluated on the basis of technical qualifications, which will include performance history as well as price. The importance of the technical evaluation in any given solicitation will be governed by the environmental sensitivity of the area to be treated, and will be identified in the solicitation.

SECTION II

CONTRACTOR RESPONSIBILITY

A. Aircraft and Application Systems

The Contractor shall provide the required number of aircraft with the following:

1. A pesticide dispersal system that has been cleaned thoroughly inside. All hoses shall be in good condition and shall be a chemical resistant type.
2. Leak proof pesticide tank(s) and spray system of corrosion resistant materials. Contractors are cautioned that pesticide may loosen some sealants and plug the spraying system. Sealants should be tested before use.
 - a. The tank(s) in each aircraft shall be installed so that the tank(s) will empty in flight and assure full flow to the pump. Sight gauges or other means shall be provided to determine the quantity in each tank.
 - b. A drain valve(s) shall be installed at the low point(s) on the spray system to facilitate the complete draining of all components (tanks, pump, plumbing, and spray booms) to recover unused pesticide while the aircraft is parked.
3. A pump that will provide the required flow rate during spraying operations to assure uniform flow and proper functioning of the nozzles.
 - a. For ULV spraying systems with a pumping capacity that exceeds the discharge calibration rate shall have the bypass flow return to the tank bottom in a manner that prevents aeration and/or foaming of the spray formulation. Pumps utilizing hydraulic drive or other variable speed drives are not required to have this bypass, provided the pump speed is set to provide only the required pressure and the system three-way valve is used for on/off control at full throw position. Any bypass normally used to circulate materials other than for ULV will be closed for ULV spraying.
 - b. For suspensions and all formulations requiring agitation, a pressure agitation system is required.
4. The spray boom shall be equipped with the quantity and type of spray nozzles specified. The outermost nozzles (left and right sides) shall be equidistant from the aircraft centerline and the distance between the two must not exceed 3/4 of the overall wingspan measurement. For helicopters, the outermost nozzles must not exceed 3/4 the rotor span. Longer spray booms are acceptable provided they are modified in accordance with the sketch shown on attachment 5 to prevent the entrapment of air in the portion beyond the outermost nozzle. For both fixed wing and helicopters, PPQ will accept the outer most nozzle between 60% and 75% of the wing span/rotor span. Fixed wing aircraft that are not equipped with a drop type spray boom may require drop nozzles in the center section to prevent spray from collecting on the tail wheel assembly and horizontal stabilizer and position the spray tips into smoother air.
5. A positive on/off system that will prevent dribble from the nozzles.
6. A positive emergency shutoff valve between the tank(s) and the pump, as close to the tank(s) as possible. This valve shall be controllable from the cockpit which will minimize inadvertent loss of pesticide due to broken lines or other spray system malfunctions (see Section IV, Paragraph J).
7. Bleed lines in any point that may trap air on the pressure side of the spraying system.
8. An operational pressure gauge with a minimum operating range of zero to 60 psi and a maximum of zero to 100 psi visible to the pilot for monitoring boom pressure.
9. A 50-mesh in-line screen between the pump and the boom, unless otherwise specified, and nozzle screens as specified by the nozzle manufacturer.

10. Nozzle tip type and size shall be as follows:

- a. Fixed wing aircraft - The type and size is indicated on page 3 of this Prospectus.
- b. Helicopter - The type and size will be specified in the solicitation.
- c. Provisions shall be made on all aircraft so that nozzle direction can be changed from 45 degrees down and forward to straight back when it is necessary to change droplet size.
- d. All nozzles not in use shall be removed and the openings plugged.
- e. Nozzle tips for all pesticides shall be made of stainless steel. (Brass is not acceptable because of its corrosion susceptibility to certain chemicals).
- f. Operating pressure will be 40 psi unless otherwise specified by the COR.

B. Formation Flying

1. When aircraft are to be flown in formation, they must be capable of operating at the same speed and swath spacing. Pilots must have formation flying experience.
2. When formation flying is agreed upon by the COR and the Contractor's Representative (CR), each Category A or B aircraft pilot will maintain a trail position no more than 1,500 feet from the lead aircraft. Each pilot of all other Category aircraft will maintain a trail position no more than 1,000 feet from the lead aircraft.

C. Calibration and Swath Checks

To assure proper coverage and uniformity of application, calibration and swath checks will be conducted when there is a reason to believe that the spraying system does not produce the desired flow rate or a uniform pattern. Swath checks will be conducted prior to program start on all aircraft that are not listed on the aircraft category sheet. An overall swath width will be determined for each model aircraft and an effective swath width equal to 75 percent of the overall will be assigned.

D. Observation Aircraft

When observation aircraft are specified in the solicitation, each will be four-place and have a rated cruising speed of 160 mph for category A and B application aircraft, 150 mph for category C application aircraft, and 130 mph for category D and all helicopter application aircraft. It shall be equipped with a device to record flight hours, and be capable of safe operation from the airport(s) used by the spraying aircraft. It shall be in good mechanical condition with a current 100-hour inspection. To prevent possible program delay, aircraft with less than the projected contract operational hours remaining on the 100-hour inspection will not be accepted at the initial acceptance inspection. The aircraft will not qualify for acceptance when its engine time reaches manufacturer's recommended overhaul time. New or overhauled engines shall have been flown a minimum of 5 hours before use on a program. Should a 100-hour inspection be performed on the aircraft during the course of the program, the Contractor shall test fly the aircraft prior to carrying Government personnel. Current logbooks shall be provided to verify aircraft and engine time and inspections. The aircraft engine shall be equipped with a standard muffler. Each observation aircraft must be equipped with an intercom system and headsets for the pilot and the observer. Each observation aircraft and its pilot will be available at the airport specified by the COR throughout the period of the contract to acquaint pilots with specific areas to be sprayed and at the request of the COR, to carry Government personnel to monitor spraying operations or to serve as a visual observation aircraft. The Government will pay the Contractor only for flight hours requested and approved by the COR.

E. Congested Areas

For all flights over congested areas, the Contractor must comply with FAR Part 137.51 and 137.53.

F. Ultra-Low-Volume Aerial Application

1. To minimize drift and volatilization, no ULV sprays shall be applied when any of the following conditions exist in the spray area: wind velocity exceeds 10 miles per hour (unless lower wind speed required under State law); rain is falling or is imminent; weather is foggy; normally when temperatures exceed 80 degrees F; air turbulence that could seriously affect the normal spray pattern; temperature inversions that could lead to off-site movement of spray.
2. No application when foliage is wet.
3. No application within 500 feet of crops for which it is not labeled, or to any crop for which no tolerance has been established, unless an exemption under Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) has been granted.
4. Application aircraft will fly at a median altitude of 1 to 1.5 times the wingspan of the aircraft whenever possible.

G. Radios

Each aircraft must be equipped with a fully operative two-way VHF radio capable of transmitting and receiving on 122.925 MHz for communications with program personnel or other means of radio communications approved by the COR.

H. Passengers

1. No passengers will be carried in application aircraft. Personnel will be limited to the necessary crew members.
2. No passengers will be carried in the observation aircraft without the approval of the COR. This approval must be recorded in the program log.

I. Aircraft Guidance

NOTE TO ALL OFFERORS: Not all Differentially Corrected Global Positioning Systems (DGPS) are approved for use on Plant Protection and Quarantine Programs. Before submitting an offer, contact Aircraft and Equipment Operations at (956) 580-7270 for a list of approved systems.

a. Each application aircraft shall be equipped with a Differentially Corrected Global Positioning System (DGPS) that has software designed for parallel offset in increments equal to the assigned swath width of the application aircraft or the formation of aircraft. The system shall be sufficiently sensitive to provide immediate deviation indications and sufficiently accurate to keep the aircraft on the desired flight path plus or minus 3 feet. Systems that do not provide course deviation updates at two second intervals or less will not be accepted. The system must display to the pilot a warning when differential correction is lost. A course deviation indicator (CDI) or a course deviation light bar must be installed on the aircraft and in a location that will allow the pilot to view the indicator with direct or peripheral vision without looking down.

b. Differential correction may be provided by a portable differential station, FM radio fixed towers, satellite, Coast Guard, or other acceptable methods. However, the differential signal must cover the entire project area. In fringe areas from the generated signal, approved repeaters may be used provided the repeater system has been tested and verified that the system is operational and differential correction is being retransmitted to the application aircraft prior to start of the program.

When electronic guidance is furnished by the Contractor:

1. The Contractor shall provide all equipment, materials, personnel, and services required for the system to be used. This guidance equipment shall meet all contract requirements and be maintained in an operational state for the duration of the contract.

2. When precision electronic guidance and flight data logging are not a program requirements, the following flagging methods are acceptable:

Flagging by individual Mirrors
Kytoons High powered "Q" lights

Other methods of flagging must be approved by the COR.

FREE FLYING WILL NOT BE ALLOWED

J. Recording Equipment

The solicitation will specify if flight data logging is required and if the recording equipment will be furnished by the Government or by the Contractor. If the recording equipment is furnished by the Government, the Contractor MAY be required to install the equipment, at the option of the Government.

When recording equipment is required, it shall be compatible with the guidance system being used and have software that will allow the flight log to be downloaded into a computer for review and Have a memory system capable of storing a minimum of 3 hours of continuous flight log data with the logging rate set at one second intervals. The flight log must show the entire flight of the aircraft from take off to landing and differentiate between spray on and spray off when viewed on the computer monitor. The software must have the capability to zoom to any portion of the flight for viewing in greater detail and a method to determine distance between each flight lane or any two points on the monitor screen. The system must be able to calculate and show total acres treated during the flight. The software must be capable of replaying the entire flight in slow motion and stop and restart the replay at any point during the flight. The software must be compatible with dot matrix printers and/or color printers and differentiate between spray on and spray off on the printed copy.

Some programs may require that the recording software be compatible with Global Information Systems such as MapInfo or others.

Upon completion of the contract, the Contractor will promptly return all Government-furnished equipment to the COR. Reference Appendix 3, Contract Clause 52.245-2, Government property.

K. Certification - State/Federal

The Contractor must be certified by the FAA, and comply with all applicable FAA regulations and applicable regulations of the state in which operations will be conducted.

1. Immediately upon award of a contract, the Contractor shall contact the appropriate office to identify all state requirements for aircraft and pilot certifications. Insurance and/or other requirements, including pesticide applicator certification that apply, must be in effect prior to starting operations.

2. Documents which shall be available at the reporting airport include all necessary documents to complete the "**AIRCRAFT AND PILOT QUALIFICATION ACCEPTANCE REPORT**", Attachment 4, which include but not necessarily limited to: The FAA Agricultural Aircraft Operators Certificate, Aircraft Registration and Airworthiness Certificate, Aircraft and Engine Log Books, Pilot Certificate, Medical Certificate, Flight Review, State Pesticide Applicators License, and proof of insurance. Documents provided for proof of insurance shall clearly state:

- a. The aircraft registration number.
- b. The period of coverage.
- c. Limits of liability.

L. Personnel

The Contractor shall provide the following:

1. A contractor's representative (CR) at each airport the Contractor is using. The CR shall have full authority to make decisions for the Contractor and direct the contractor's operations. The CR shall be stationed at the airport for the duration of the contract and shall be available for consultation at all times as requested by the COR

If the CR is fully qualified, the CR may operate the observation aircraft when an observation aircraft is required on the program. The CR will not be permitted to operate a spraying aircraft except when authorized by the COR.

2. A qualified Commercial or Airline Transport Pilot with a current First or Second Class FAA medical certificate for each spraying aircraft who has:
 - a. More than 1,000 hours as pilot-in-command (PIC), and
 - b. More than 100 hours pilot-in-command aerial application experience.
 - c. On the Gypsy Moth program, more than 25 hours of forest spraying experience.
 - d. For operations over congested areas, 25 hours of pilot-in command flight time in the make and basic model of the aircraft, at least 10 hours of which must have been acquired within the preceding 12 calendar months and 100 hours of flight experience as PIC in dispensing of materials or chemical.
3. A copilot for each Category A and B aircraft who shall have a Commercial or Airline Transport Pilot certificate with a current First or Second Class FAA medical certificate. No flights will be permitted without a qualified copilot on board.
4. A qualified Commercial or Airline Transport Pilot with a current First or Second Class FAA medical certificate for each observation aircraft who has:
 - a. More than 1,000 hours PIC time, and
 - b. more than 50 hours aerial application and/or 50 hours of aerial application observation experience.
5. Personnel experienced in the use of the Guidance System(s) furnished.
6. Personnel to mix pesticide when mixing equipment is required in the solicitation.
7. Personnel to load and service the aircraft.
8. When required, a person or persons certified as an applicator of restricted use pesticides (certified pesticide applicator) by the state in which the operations will be conducted.

M. Additional Aircraft and Pilots

Each solicitation will specify the category and the number of aircraft required for the program. Should the Contractor wish to provide additional aircraft and pilot(s) that meet all contract requirements, he may do so provided it is agreeable with the COR. No adjustment will be made in the contract price for providing additional aircraft beyond the number and category of aircraft required by the contract or in the number of gallons or acres to be sprayed.

N. Withdrawal, Substitution of Aircraft or Personnel

The Contractor shall notify the COR in writing prior to any withdrawal or substitution of aircraft, pilot or copilot.

O. Airport Selection

The Contractor shall select the airport(s) to be used and make the necessary arrangements with the proper authority for:

1. Use of each airport.
2. Payment of any fees charged for its use.
3. Payment for repairs or damages that result from the contractor's aircraft, equipment, or contamination from pesticide.
4. Timely removal of all aircraft and equipment from the airport(s), after the program is completed unless other satisfactory arrangements are made with the airport authorities.
5. Maintaining the areas used by the Contractor in a clean and orderly fashion during their use and cleanup after use, to the satisfaction of the COR.

Within 3 calendar days after receipt of award, the Contractor and COR shall agree on which airport will be used at the beginning of the program. That airport will then be designated as the reporting airport.

Operations will be conducted from only one airport at a time, unless otherwise authorized or directed by the COR.

P. Transport of Pesticide

The Contractor shall provide personnel, safety equipment, and transportation for the pesticide from the storage site(s) to the aircraft loading site on each airport and deliver empty pesticide containers to the site(s) designated by the COR.

Q. Pesticide Mixing Equipment

The Contractor shall provide pesticide mixing equipment, when specified in the solicitation. The capacity of the mixing equipment shall be sufficient to prevent delays in applicator aircraft flight schedules.

Mixing equipment basic design shall include:

1. Interchangeable strainer screens.
2. Internal agitator for mixing the formulation.
3. A lowest point drain to completely empty the tank.
4. Opening on the top side to allow for thorough cleaning and inspection of each compartment.

Specific requirements for various formulations will be specified for each contract (i.e. hydraulic or paddle agitation, etc).

The Contractor shall make provisions to measure each batch of pesticide formulation mixed, by means of a calibrated measuring stick, sight gauge, or other acceptable means. An engine-driven centrifugal pump shall be attached to each tank to thoroughly mix and circulate the pesticide. This pump may be used to add diluent to the tank through fitting and valve combinations. It may also be used to load the aircraft. All equipment and personnel must be in compliance with state/federal safety requirements.

NOTE: No mixing, loading, or unloading shall be conducted in areas where an accidental spill could contaminate a stream or other body of water.

R. Water Transport for Mixing Pesticide

When water is required for mixing formulations, the Contractor shall provide water and clean tankers to transport water for mixing the pesticide in sufficient quantities to insure uninterrupted aircraft operation. Each tanker shall be equipped with a pump of at least 50 gallons per minute capacity so arranged that it can be used to load or unload the tank. Water for mixing pesticide may be drawn from city water supplies, wells, farm tanks, streams, or lakes, provided it is clean. The Contractor will assure all water used in mixes of Sevin XLR Plus shall be a pH of 7 or less. The COR will decide whether questionable water may be used and his decision shall be final.

S. Loading Equipment

When specified in the solicitation, the Contractor shall provide complete aircraft loading equipment that includes:

1. Pumps capable of loading each aircraft at a minimum rate of 50 gallons per minute. The mixing pump can also be used for this purpose. The solicitation will specify how the pesticide will be delivered and whether it will require mixing. The pumping equipment must be adaptable to the containers from which the aircraft will be loaded.
2. Liquid flow meters that are accurately calibrated and compatible with the pumping equipment and agricultural chemicals used. For Category A and B operations only, each metering unit shall be equipped with an air elimination device. Calibration accuracy shall be tested by a local government weights and measures agency or demonstrated to the COR by pumping the pesticide into an accurately marked container of sufficient size. In the event abrasive formulations are used, meter calibration checks will be conducted at the discretion of the COR. Meters showing a consistent error rate can be used provided a corrective factor is applied and recorded as such. Meters with erratic test readings are not acceptable.
3. Strainer mesh equivalent to the size used in the aircraft system.
4. Loading Nozzle. Positive shutoff, quick-disconnect couplings, valves, or attachments so installed as to eliminate loss of pesticide during loading or uncoupling.
5. All hoses shall be in good condition and shall be chemical resistant.

T. Responsibility for Pesticides

The Contractor shall be responsible for all pesticide and materials accepted from the Government until properly applied on assigned areas.

U. Insurance

The Government requires the Contractor to maintain aircraft liability insurance coverage on all aircraft in the amounts required by the states in which operations are conducted, but not less than:

- \$200,000 bodily injury, one person
- \$500,000 bodily injury, more than one person
- \$200,000 property damage, per accident

V. Wage Determinations

The Contractor will be required, under the Service Contract Act of 1965, to pay the minimum hourly wage and fringe benefits to the class of service employees that will be used on the job and who are covered under the Department of Labor wage determinations. (See Attachment 2.) No increase in contract price will be allowed or authorized as a result of payment of wage rates in excess of those listed in attached wage determination.

SECTION III GOVERNMENT RESPONSIBILITY

The Government will:

A. Maps, Information, Briefing

Provide maps, information and briefing for the pilot(s) of the areas to be treated.

B. Pesticides

Provide pesticide (and special diluents or stickers when required, excluding water) delivered to the storage site(s) listed in the solicitation

Reference Appendix 3, Contract clause 52.245-2 Government property.

C. Pesticide Spills

Provide personnel, safety equipment, tools, and materials needed to clean up a pesticide spill.

If a spill occurs after the pesticide has been delivered into the contractor's aircraft, the Government will take action to contain and clean up the spill. However, the Contractor will be liable for all damages and costs incurred.

D. Record Keeping Requirements

Provide Federal Register, 7 CFR part 110, (Record keeping Requirements for Certified Applicators of Federally Restricted Use Pesticides) to the Contractor for their review and information.

E. Daily Flight Record (PPQ Form 802)

Provide and maintain an accurate Daily Flight Record and furnish the Contractor with a copy.

F. Payment for Gallons/lbs Applied

Pay the Contractor for each gallon/lb of pesticide acceptably applied, based on the flight records and partial delivery receipts prepared by the Government. Payment will be made in accordance with Federal Acquisition Regulation 52.232-1, providing the following conditions are met:

1. Invoices shall show the total number of gallons/lbs of pesticide acceptably applied with inclusive date for the period covered.
2. The Daily Flight Record has been signed by the CR.
3. Invoices shall not be submitted for less than a one-week period, except upon completion of the contract. The Contractor shall coordinate with the COR when partial payments are desired.
4. Invoices shall be forwarded to the billing address shown on the Purchase Order or Block 12 of the Standard Form 26 (Award/Contract).

Failure to comply with the above conditions may result in delay of payment.

G. Payment for Observation Aircraft

Pay the Contractor an hourly rate, computed to the nearest tenth of an hour, for the use of the observation aircraft when required by the COR. Such payment will be at the rate of \$150 per hour for a 160 mph aircraft, \$140 per hour for a 150 mph aircraft, and \$130 per hour for a 130 mph aircraft. If a faster observation aircraft is furnished when a slower observation aircraft was requested, payment will be at the rate of the requested speed. The Contractor will be paid a minimum of 1-1/2 hours of flight time for each operational day. A record of ordered flight time, based on flight recorder readings, will be kept on a Daily Flight Record by the Government.

SECTION IV

CONTRACT ADMINISTRATION

A. Rejection of Aircraft/Application Systems

The Government may reject at any time any aircraft and/or application system deemed to be unsafe or which does not comply with contract specifications. Qualifying tests of aircraft may be conducted by the Government to assure that contract requirements are met. All operational costs incurred in conducting these tests will be borne by the Contractor except that the Government will furnish the pesticide used for swath checks.

B. Rejection of Electronic Guidance Systems

The accuracy of each electronic guidance and/or flight data logging system must be verified by the COR before acceptance on the program.

The Government may reject at any time, the electronic radio guidance system or any component which does not comply with the contract specifications.

C. Rejection of Personnel

The Government may reject at any time the CR or any pilot found unqualified or incompetent, who operates his aircraft in a negligent manner, or fails to perform satisfactorily.

D. Spray Boom Timer

The Government reserves the right to require the Contractor to install Government-furnished timing devices on the boom or boom line of each application aircraft. Reference Attachment 3, Section I, Contract Clause 52.245-2 Government Property.

E. Sequence of Application - Stopping, Starting

The COR will determine the time and sequence of treating individual areas and the time to start and stop application each day. If the COR is not in the treatment area and is unaware of deteriorating weather conditions, the pilot(s) are responsible to voluntarily stop application to avoid possible liquidated damages.

F. Program Progress - Additional Aircraft

The COR will determine whether program progress is satisfactory. If the Contractor has not completed applying 40 percent of the gallons/lbs of pesticide within 40 percent of the operational hours allowed, he shall furnish additional aircraft within 3 calendar days when required by the CO. Such aircraft shall be of the same category as those specified in the solicitation; shall meet all contract requirements, including qualified pilot(s) to operate the aircraft; and shall be fully operational within 1 day after reporting. No adjustment will be made in the contract price for furnishing such additional aircraft.

G. Liquidated Damages

All charges assessed in the following subparagraphs shall be paid to the Government as fixed, agreed, and liquidated damages, not as a penalty.

1. Should the Contractor delay the program for any reason, a charge or deduction from payment of \$1,000 per day for each aircraft will be assessed to the Contractor.

The rates above will be charged for:

- a. Each aircraft that fails to report on the official reporting date.
 - b. Each aircraft that fails to begin treatment on the official starting date, provided it is an operational day, and for each operational day thereafter until it begins treatment.
 - c. Each aircraft that fails to treat on an operational day and each operational day thereafter, until it begins treatment. However, when an aircraft fails to treat for more than one reason on a day for which liquidated damages are charged, no more than the daily liquidated damage rate for that aircraft will be charged for that day.
 - d. Each additional aircraft that fails to report within 3 calendar days, when requested, and qualify within 1 day after reporting, such charges will begin after the fourth day and continue until it is operational.
2. Should the Contractor fail to complete the program within the specified number of operational hours, he will be charged an hourly rate equal to 1/6 of the daily liquidated damage rate shown above for each aircraft on the program (including the additional aircraft when required) for each full additional operational hour needed to complete the program.

H. Delays Beyond Control of Contractor

The Contractor will not be liable for delays or failures caused by the Government, or reasons beyond the control of the Contractor.

I. Cost of Pesticide Jettisoned

An estimate of the amount of pesticide that is jettisoned for any reason, will be made by the COR and the cost thereof deducted from any amounts due the Contractor.

J. Cost of Pesticide Lost

An estimate will be made by the COR of the amount of pesticide lost due to spillage, overflowing of tanks, leakage of tanks, or loading devices, due to the contractor's personnel, and the cost thereof deducted from any amounts due the Contractor under this contract.